

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 14-34 were pending in this application. Claims 16, 22, and 27 have been cancelled, claims 14, 20, 25 and 32 have been amended, and new claims 35-37 have been added hereby. Support for the amended and new claims can be found in, at least, the now-cancelled claims, page 6 of the specification, and the drawings. No new matter has been presented. Upon entry of this Amendment, claims 14, 15, 17-21, 23-26, and 28-37 will be pending herein and, for the reasons set forth below, are all believed to be in condition for allowance.

In the Office Action dated August 18, 2009,

- Claims 14-29 and 31-34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Minnis et al. (US 6,954,628; "Minnis"); and
- Claim 30 was rejected under 35 U.S.C. §103(a) as being unpatentable over Minnis in view of Reisch et al. (US 5,168,375; "Reisch").

These grounds of rejection are respectfully traversed.

The present invention provides a mixed signal chip 10 to process received radio signals of a given one of two receiver systems (e.g., one in accordance with UMTS (3G) and another in accordance with GSM (2G)). Based on the given receiver system, the invention selects an appropriate configuration for various components, including, for example, an ADC, Decimator, FIR filter, and Sample Rate Adaption unit. See Figures 1-3 of the present application.

Applicant respectfully submits that the amended and new claims are allowable over Minnis for several reasons.

First, as compared to Minnis, the claimed invention provides substantially more flexibility regarding filtering using digital filters (e.g., reference numeral 24 in Figure 1 of the present application). Specifically, in Minnis, the receiver can select between filters designed for 2G and 3G operations, but the filters provided for each of the operating modes are fixed. This can be seen from Figure 17 where it is indicated that the filter coefficients are held in ROM.

Hence, the filter coefficients cannot be modified once they have been selected for each of the modes.

In contrast, in the claimed invention, the filters are adjustable ("wherein the filter comprises an FIR filter with adjustable tap coefficients which can be adjusted to allow the filter to perform filtering in the first manner and in the second manner"), as recited by independent claims 14, 20 and 25.

As a second, and related, reason, page 6 of the present application explains that the "filter may be programmed to compensate for frequency distortions introduced by the radio section of the receiver architecture." That is, the filter coefficients in the claimed invention can be modified in order to match the specific characteristic of the front-end processing of the receiver. New claims 35-37 recite this programming feature, which is neither disclosed nor suggested by Minnis, since, as noted above, the filter coefficients in Minnis are fixed.

Third, in the claimed invention, two stages of sample rate adjustments are implemented. There is a first stage of sample rate adjustment provided by, e.g., decimator 18 of Figure 1, which operates before digital filtering, and then a second stage of sample rate adjustment, e.g., block 30 of Figure 1, that is provided after the digital filtering. Independent claims 14 and 20 already expressly required this two stage sample rate adjustment, and independent claims 25 and 32 have been amended to even more clearly recite this feature.

In Minnis, on the other hand, there is only one stage of sample rate adjustment, namely block 524 in Figure 5 (and that block does not even appear in Figure 17 of Minnis). Thus, Minnis does not disclose sample rate adjustment before and after digital filtering, as is required by the claimed invention.

Based on the foregoing clear distinctions between the claimed invention and Minnis, it is respectfully submitted that the claimed invention is allowable over Minnis taken singly, or even in combination with Reisch.

In view of the foregoing all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is

desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

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Respectfully submitted by:

EDELL, SHAPIRO & FINNAN, LLC
CUSTOMER No. 27896
1901 Research Boulevard, Suite 400
Rockville, MD 20850
(301) 424-3640

/Lawrence D. Eisen/
Lawrence D. Eisen
Reg. No. 41009